

FIG. 1

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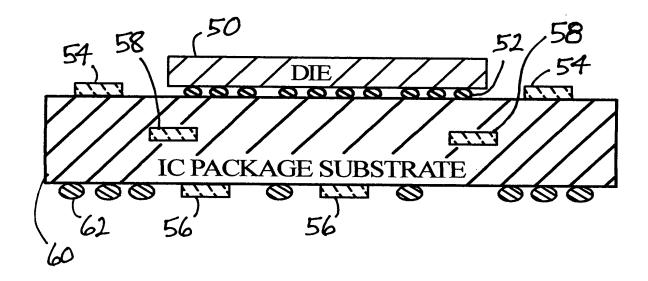


FIG. 2 (PRIOR ART)

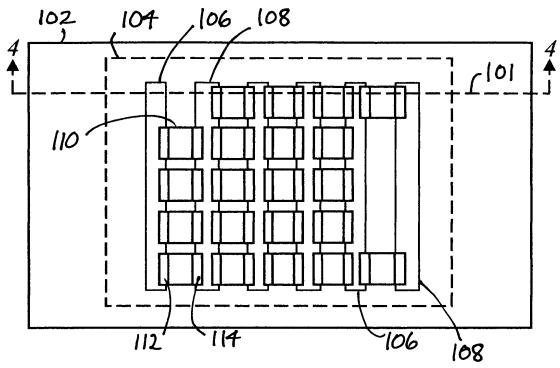


FIG. 3

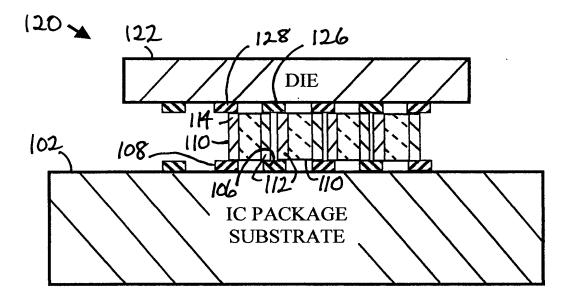


FIG. 4

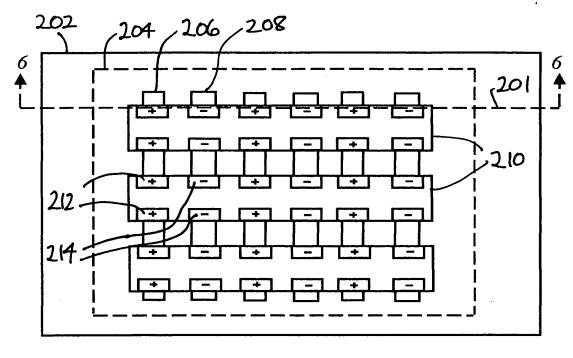


FIG. 5

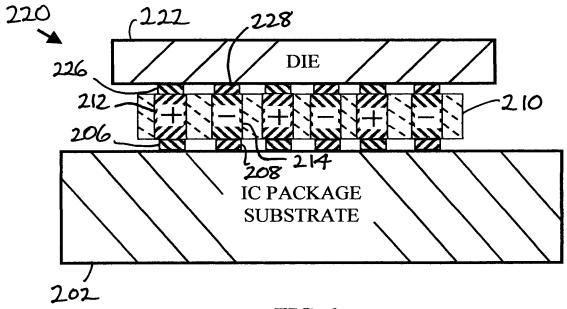
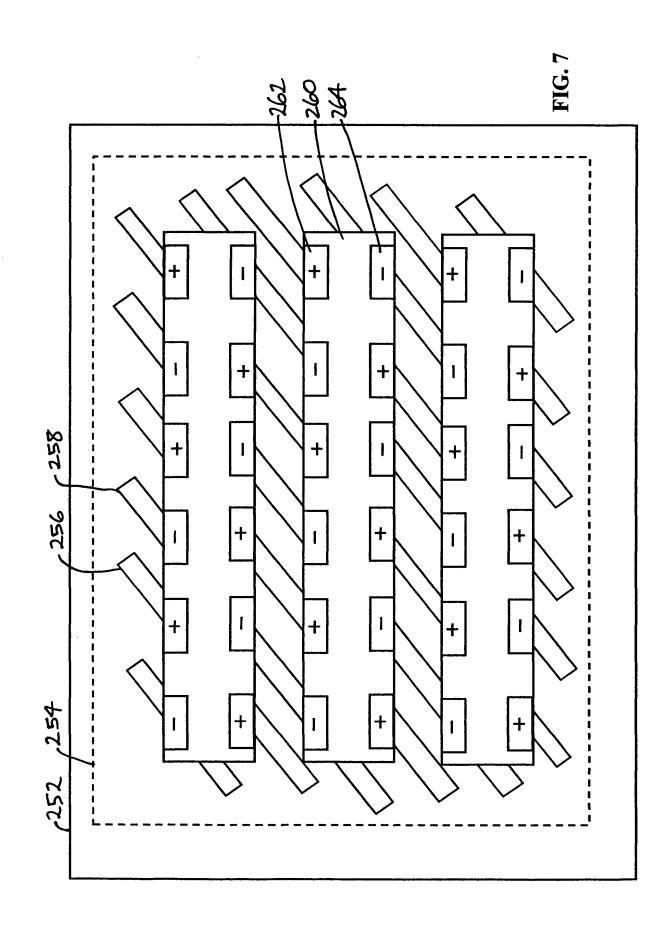
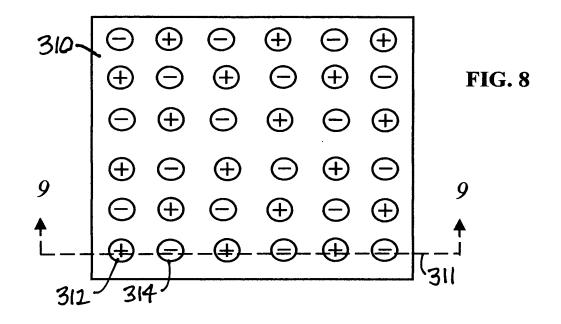
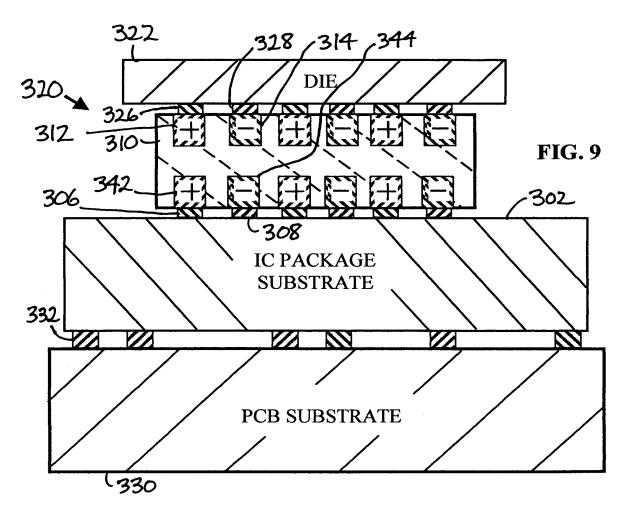


FIG. 6







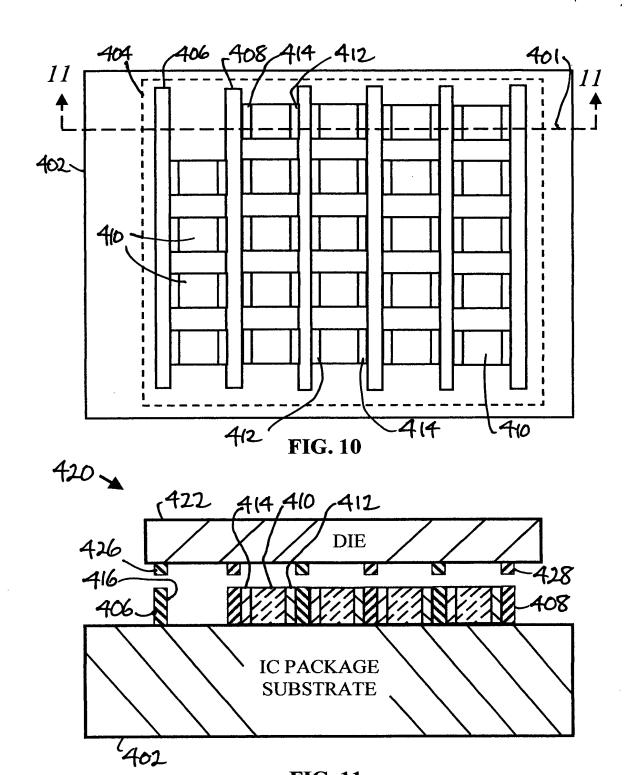


FIG. 11

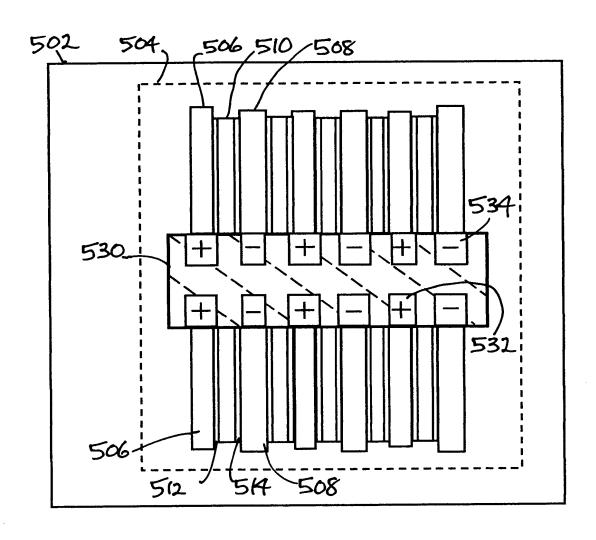
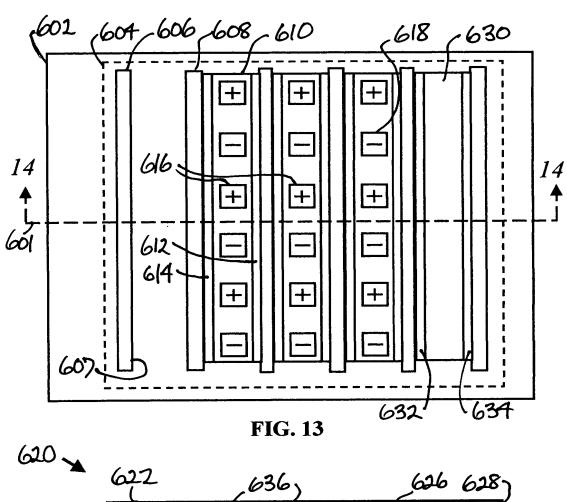
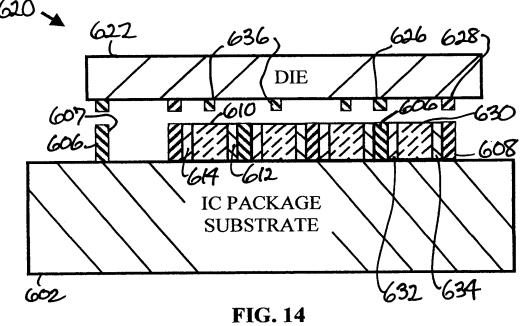
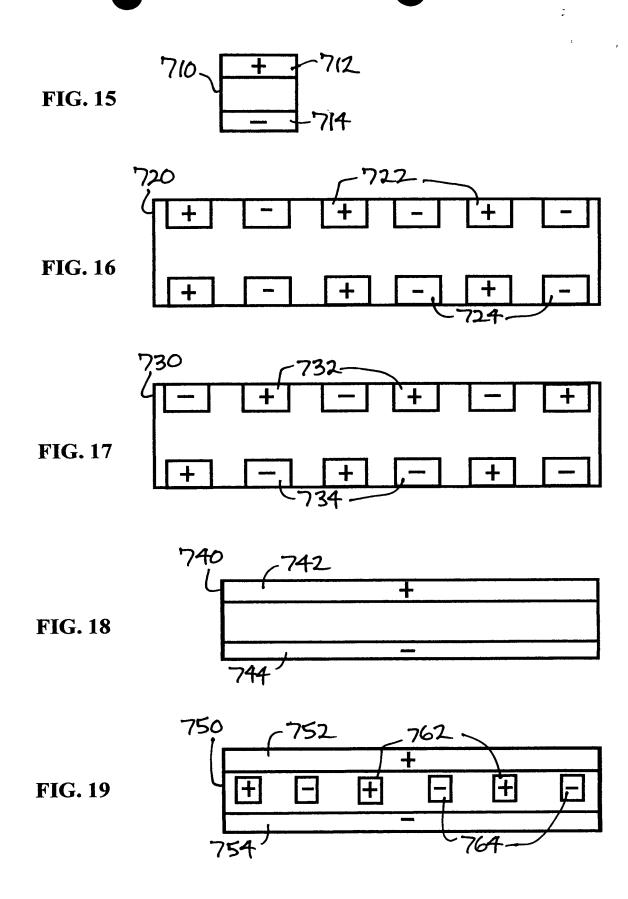
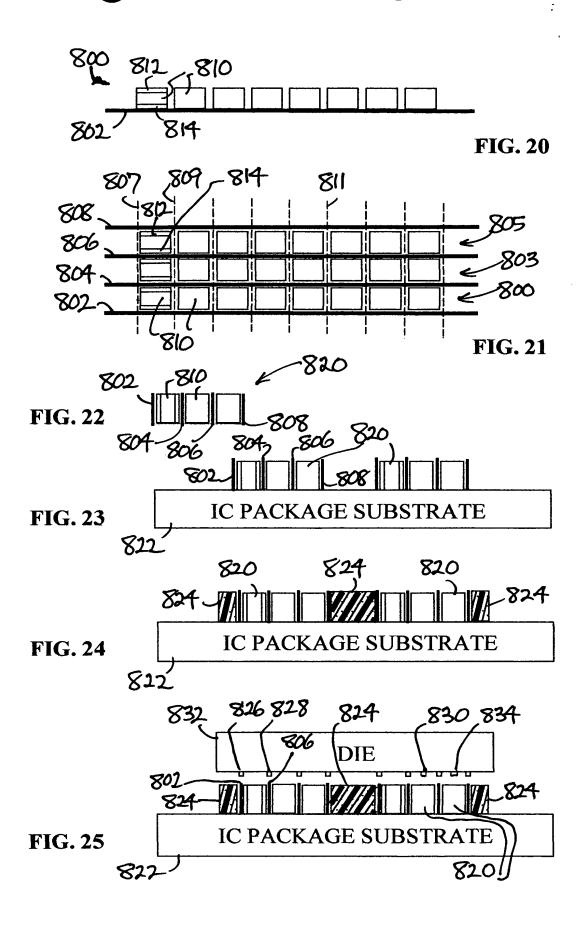


FIG. 12

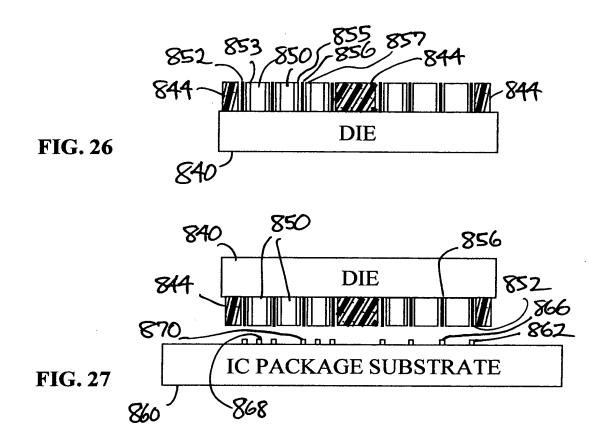








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OBTAIN AND/OR MAKE CAPACITORS AND AN IC PACKAGE SUBSTRATE [FOR AN EMBODIMENT WHEREIN CAPACITORS ARE TO BE PLACED ON AN IC PACKAGE SUBSTRATE]

[FOR AN ALTERNATIVE EMBODIMENT, WHEREIN CAPACITORS ARE TO BE PLACED ON AN IC: OBTAIN OR MAKE AN IC]

- THE CAPACITORS CAN BE OF ANY TYPE, INCLUDING DISCRETE, ARRAY, INTERDIGITATED, CAPACITOR ASSEMBLIES, ETC.
- EACH CAPACITOR OR CAPACITOR ASSEMBLY HAS TERMINALS OF FIRST AND SECOND POLARITY TYPES

ARRANGE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ON A SURFACE OF THE IC PACKAGE SUBSTRATE WITHIN AN IC MOUNTING REGION

[FOR ALTERNATIVE EMBODIMENT: ARRANGE THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ON A SURFACE OF THE IC]

- THE SUBSTRATE SURFACE [ALTERNATIVE EMBODIMENT: IC SURFACE] HAS A PLURALITY OF CONDUCTORS, INCLUDING A FIRST SET TO CONDUCT A FIRST POTENTIAL, AND A SECOND SET TO CONDUCT A SECOND POTENTIAL

904.

FIG. 28A

904, cont.

- THE CONDUCTORS CAN BE OF ANY SUITABLE TYPE, SUCH AS SURFACE TRACES, PADS, OR BARS
- THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ARE ARRANGED SUCH THAT CERTAIN TERMINALS OF THE FIRST POLARITY TYPE CONTACT THE FIRST SET OF CONDUCTORS, AND CERTAIN TERMINALS OF THE SECOND POLARITY TYPE CONTACT THE SECOND SET OF CONDUCTORS
- IF THE IC PACKAGE SUBSTRATE SURFACE
 [ALTERNATIVE EMBODIMENT: IC SURFACE] HAS
 CONDUCTIVE BARS, ONE OR MORE OF THE
 CAPACITORS AND/OR CAPACITOR ASSEMBLIES IS
 POSITIONED BETWEEN ADJACENT ONES OF THE BARS

SECURE THE CAPACITORS AND/OR CAPACITOR
ASSEMBLIES TO THE SUBSTRATE SURFACE
[ALTERNATIVE EMBODIMENT: TO THE IC SURFACE] USING
A SUITABLE MECHANISM

- E.G., APPLY A FILL OR ADHESIVE MATERIAL TO THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND/OR TO OPENINGS BETWEEN THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES; USE SPACERS OR CLAMPS; ETC.

9087

POSITION AND MOUNT AN IC ON THE MOUNTING REGION, E.G. USING SOLDER REFLOW

- ELECTRICALLY COUPLE THE IC TERMINALS TO CORRESPONDING TERMINALS OF THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND OPTIONALLY TO CONDUCTORS ON THE SUBSTRATE

908, cont.

- IF THE IC PACKAGE SUBSTRATE SURFACE HAS CONDUCTIVE BARS, ONE OR MORE OF THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES CAN BE ELECTRICALLY COUPLED TO ONE OR MORE BARS, TO THE IC, OR TO ONE OR MORE BARS AND TO THE IC

[FOR ALTERNATIVE EMBODIMENT: POSITION AND MOUNT THE IC ON A MOUNTING REGION OF AN IC PACKAGE SUBSTRATE, E.G. USING SOLDER REFLOW]

- [ALTERNATIVE EMBODIMENT: ELECTRICALLY COUPLE THE IC PACKAGE SUBSTRATE TERMINALS TO CORRESPONDING TERMINALS OF THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND OPTIONALLY TO CONDUCTORS ON THE IC]
- [ALTERNATIVE EMBODIMENT: IF THE IC SURFACE HAS CONDUCTIVE BARS, ONE OR MORE OF THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES CAN BE ELECTRICALLY COUPLED TO ONE OR MORE BARS, TO THE IC PACKAGE SUBSTRATE, OR TO ONE OR MORE BARS AND TO THE IC PACKAGE SUBSTRATE]

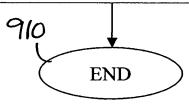


FIG. 28C

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SET OF CONDUCTIVE BARS

FIG. 29A

958.

MOUNT THE IC ON AN IC MOUNTING REGION OF THE IC PACKAGE SUBSTRATE

- FOR THE ONE EMBODIMENT: CONDUCTIVE BARS FROM THE FIRST SET AND SECOND SETS TOGETHER MAKE UP THE REQUIRED NUMBER OF CONDUCTIVE BARS
- FOR THE ALTERNATIVE EMBODIMENT:
 CONDUCTIVE BARS FROM THE FIRST SET OF
 CONDUCTIVE BARS ARE JOINED TO
 CONDUCTIVE BARS FROM THE SECOND SET
 OF CONDUCTIVE BARS TO FORM
 CONDUCTIVE BARS HAVING A FINAL
 DESIRED HEIGHT

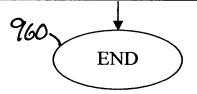


FIG. 29B